EPA Region 5 Records Ctr.
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K4
6/15/01

PARSONS

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June 15, 2001

Mr. Jeff Gore
United States Environmental Protection Agency
Region V (5HE)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Semi-annual Report - December 2000 through May 2001
Source Area Remediation
Fisher-Calo Superfund Site
LaPorte County, Indiana

Dear Mr. Gore:

In accordance with the Source Area Remedial Action Work Plan for the Fisher-Calo Superfund Site dated November 17, 1997, and pursuant to Section XI of the Consent Decree for the United States of America versus Accurate Partitions Corp., *et al.* - Civil Action No. S91-00646M, which was lodged on December 30, 1991, and entered by the United States District Court on February 27, 1992, this report is submitted as the semi-annual progress report for the source area remediation program for the months December 2000 through May 2001.

AREA A3

No activities were performed. Based upon a letter from USEPA dated August 1, 1998 indicating that the cleanup criteria for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) at Area A3 have been met, the air sparging system at Area A3 has been shut down since August 11, 1998, and all required work in this area has been completed.

SPACE LEASING AREA

No activities were performed. Based upon a letter from USEPA dated September 7, 1999, the cleanup criteria for VOCs at the Space Leasing Area have been met. The soil vapor extraction system at the Space Leasing Area has been shut down since December 1, 1998, and all required work in this area has been completed.

AREA A1

No activities were performed. Based upon a letter from USEPA dated December 7, 1999, the cleanup criteria for VOCs and SVOCs at Area A1 have been met. The soil vapor extraction system at Area A1 has been shut down since August 25, 1999, and all required work in this area has been completed. The security fence remains in place around the Area A1 soils.

AREA C2

Based upon a letter from USEPA dated December 7, 1999, the cleanup criteria for VOCs at Area C2 have been met. The soil vapor extraction system at Area C2 has been shut down since August 25, 1999, and all required remediation work in this area has been completed.

KIDP AREA

Activities Performed During the Reporting Period

1. The SVE system at the KIDP Area continued to operate from December 1, 2001 through May 31, 2001 at approximately 800 cfm, and periodic visits were made to the KIDP Area during this reporting period for routine maintenance and system checks. Only wells W1, W3, W4, and W6 were operational during this period; the remaining wells are located in areas already successfully remediated. Treatment of SVOCs is occurring at the KIDP area.

2. The third annual confirmation soil sampling event for the KIDP Area was performed on May 8, 2001. During this sampling event, 8 soil sampling locations were sampled and analyzed (all for SVOCs). Four of these locations were reconfirmation locations (because B2EP soil concentrations were found to have dropped by more than 80 percent between the previous two sampling events at these locations), and four locations were found to have B2EP concentrations above the Soil Action Level (SAL) during the May 2000 sampling event. Sampling locations are shown in Attachment A, Figure 1. Analytical data for this sampling event have been included in Attachment A, Tables 1 and 2. Table 1 compares the most recent SVOC analytical data to the historical data collected at the KIDP Area. Table 2 includes only data collected during the most recent (May 8, 2001) sampling event. A validation memo for this sampling effort is included in Attachment B.

3. The analytical data from the KIDP Area sampling indicate that all but 2 of the SVOC locations have achieved the SALs. The remaining two locations (K-SB2, 2-4'; K-SB5, 8-10') only exceed the B2EP SAL; all other SVOCs have been successfully remediated at these two locations.

Activities Scheduled for the Next Reporting Period

1. The KIDP system will continue to operate in its current configuration (wells W1, W3, W4, and W6). Because the concentrations of B2EP in the two remaining sampling locations are fairly close to the SAL (10 and 14 ppm, compared to an SAL of 6.1 ppm), the next sampling event is proposed to take place in November 2001. Only the two remaining locations at the KIDP Area will be sampled during this event.

The reporting period of the next semi-annual report to be submitted to USEPA and IDEM will be from June 1, 2001 through November 30, 2001. Should you have any questions regarding this report, please feel free to call Mr. Rick Frendt at (630) 371-1812.

Sincerely,

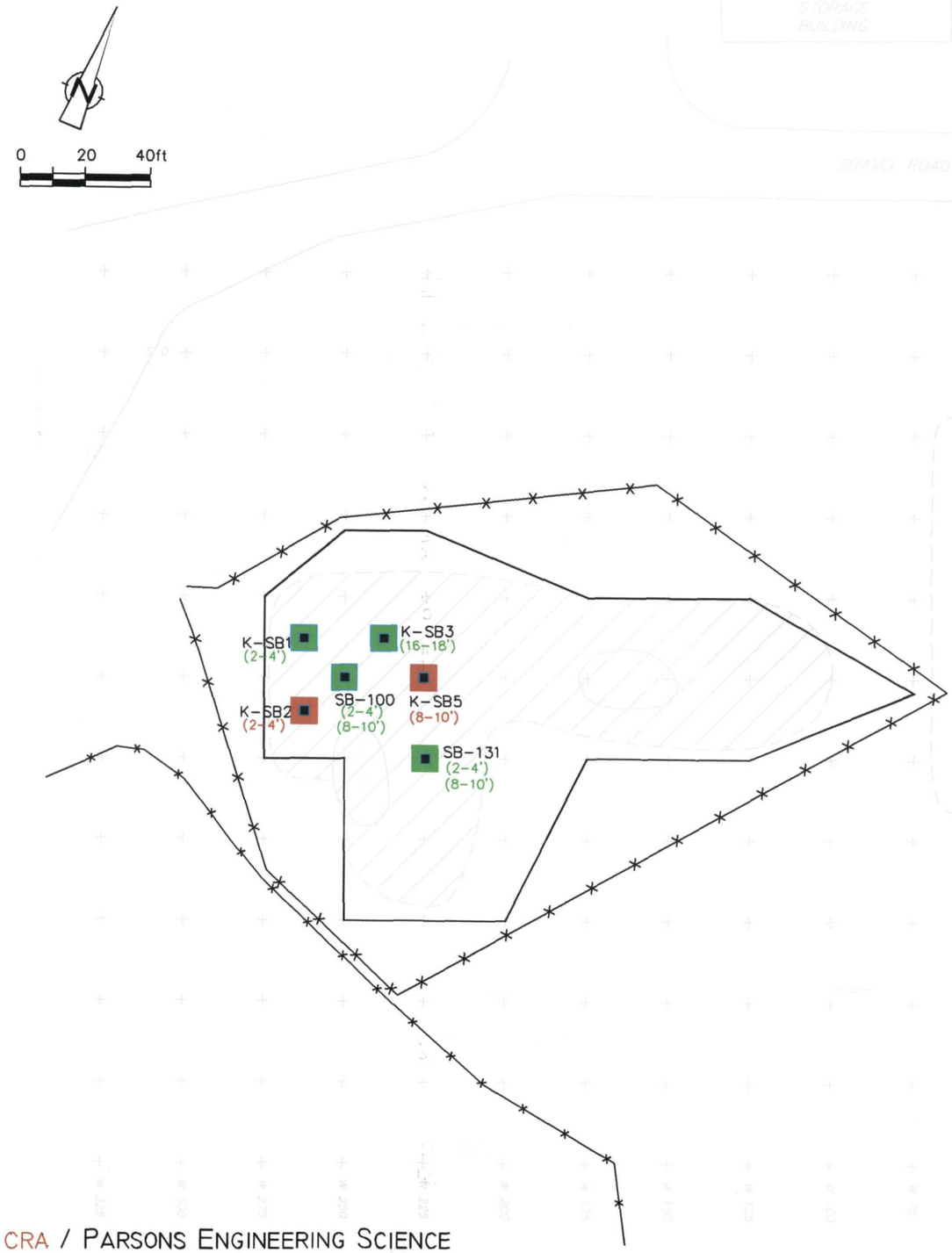
PARSONS ENGINEERING SCIENCE, INC.,

Richard M. Frendt, P.E.
Project Manager

RMF:tme
Attachments
c: Resa Ramsey/IDEM
Site Group Technical Committee
David Heidlauf/Montgomery Watson
Dick Paulen/Barnes & Thornburg
File: 731517

ATTACHMENT A

FIGURES AND TABLES



LEGEND

- EXISTING FENCE
- LIMIT OF EXCAVATION
- LIMIT OF DRUMS
- LIMIT OF DRUMS AND GAS CYLINDERS
- B2EP/SVOC CONFIRMATION SOIL BORING LOCATION
- FENCE TO SECURE SOURCE AREA
- HORIZONTAL EXTENT OF B2EP/SVOC IMPACTED SOIL
- CONFIRMATION SOIL BORING LOCATION WITH B2EP/SVOC EXCEEDANCE IN MAY 2001

SOURCE: FRANCIS ASSOCIATES CONSULTING ENGINEERS LAND SURVEYORS, PARIS, ILLINOIS, APRIL 1995.

FIGURE 1
MAY 2001 B2EP/SVOC CONFIRMATION SOIL SAMPLING LOCATIONS
KIDP AREA
Fisher-Calo Site

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SAP\3-6-R6 6-15-01 /NW

TABLE 1

COMPARISON OF BASELINE AND CONFIRMATION SAMPLING

SVOCs - KIDP AREA

FISHER-CALO SITE

KINGSBURY INDIANA

LOCATION	*SAMPLE DATE*	*STATE COORDINATES* [1] *NORTHING*	*EASTING*	*LOCAL COORDINATES*	*DEPTH (feet)*	*B2EP*	*Isophorone*	*2-Methyl-naphthalene*	*Naphthalene*
					Soil Action Levels	6.1	410	190	190
SB-99-8-10	06/10/94	6082.28	12274.70	S100, W225	8-10	0.33 U	0.87	0.43	0.73
SB-99-8-10 Dup	06/10/94				8-10	32	3.3 U	28	51
SB-99-8-10	05/25/99				8-10	0.33 U	0.33 U	0.33 U	0.33 U
SB-99-8-10-Dup	05/25/99				8-10	0.33 U	0.33 U	0.33 U	0.33 U
SB-100-2-4	06/10/94	6050.09	12260.09	S125, W250	2-4	47 J	840	200	440
SB-100-2-4	05/27/99				2-4	90	400	210	370
SB-100-2-4-Dup	05/27/99				2-4	88	410	200	380
SB-100-2-4	05/10/00				2-4	29 D	560 D	250 D	220 D
SB-100-2-4-Dup	05/10/00				2-4	22 D	400 D	110 D	110 D
SB-100-2-4	05/08/01				2-4	1.4	17	2.4	4.3
SB-100-2-4-Dup	05/08/01				2-4	3.5	23	5.1	12
SB-100-8-10	06/10/94	6050.09	12260.09	S125, W250	8-10	7.7 J	110	15	40
SB-100-8-10	05/27/99				8-10	44	200	63	160
SB-100-8-10-Dup	05/27/99				8-10	35	230	69	190
SB-100-8-10	05/10/00				8-10	14 D	0.85	0.33 U	0.072 J
SB-100-8-10-Dup	05/10/00				8-10	16 D	0.43	0.13 J	0.2 J
SB-100-8-10	05/08/01				8-10	3.2	28	2.2	0.58
SB-100-8-10-Dup	05/08/01				8-10	2.3	31	2.7	1.7
SB-131-2-4	11/16/94	6035.47	12292.28	S150, W225	2-4	35 J	520	93	260
SB-131-2-4	05/26/99				2-4	41	83	100	160
SB-131-2-4-Dup	05/26/99				2-4	21	51	62	84
SB-131-2-4	05/10/00				2-4	3.8	0.13 J	0.61	0.34
SB-131-2-4-Dup	05/10/00				2-4	4.4	0.11 J	0.18 J	0.1 J
SB-131-2-4	05/08/01				2-4	2.7	0.37	1.1	0.67
SB-131-2-4-Dup	05/08/01				2-4	3.7	0.33 U	3.7	3.1

TABLE 1

COMPARISON OF BASELINE AND CONFIRMATION SAMPLING

SVOCs - KIDP AREA

FISHER-CALO SITE

KINGSBURY INDIANA

LOCATION	*SAMPLE DATE*	*STATE COORDINATES* [1] *NORTHING*	*EASTING*	*LOCAL COORDINATES*	*DEPTH (feet)*	*B2EP*	*Isophorone*	*2-Methyl-naphthalene*	*Naphthalene*
					Soil Action Levels	6.1	410	190	190
SB-131-8-10	11/16/94	6035.47	12292.28	S150, W225	8-10	27	120	43	66
SB-131-8-10 Dup	11/16/94				8-10	39	200	55	98
SB-131-8-10	05/26/99				8-10	44	670	160	330
SB-131-8-10-Dup	05/26/99				8-10	48	580	120	230
SB-131-8-10	05/10/00				8-10	2.3	240	81	120
SB-131-8-10-Dup	05/10/00				8-10	4.8	260	100	160
SB-131-8-10	05/08/01				8-10	1.6	13	2.1	3
SB-131-8-10-Dup	05/08/01				8-10	1.5	10	2	2.6
SB-132-8-10	11/16/94	6094.03	12377.11	S125, W125	8-10	49	130	230	490
SB-132-8-10	05/25/99				8-10	0.33 U	0.33 U	0.33 U	0.33 U
SB-132-8-10-Dup	05/25/99				8-10	0.32 U	0.32 U	0.32 U	0.32 U
SB-132-8-10	05/10/00				8-10	0.33 U	0.33 U	0.33 U	0.33 U
SB-132-8-10-Dup	05/10/00				8-10	0.33 U	0.33 U	0.33 U	0.33 U
SB-136-2-4	11/17/94	6067.67	12306.89	S125, W200	2-4	16 J	460	120	290
SB-136-2-4 Dup	11/17/94				2-4	7	100	25	59
SB-136-2-4	05/26/99				2-4	1.2	0.14 J	0.33 U	0.33 U
SB-136-2-4-Dup	05/26/99				2-4	5.8	4.9	2.2	2.9
SB-139-2-4	11/18/94	6073.49	12251.3	S100, W250	2-4	88	13 U	33	73
SB-139-2-4	05/25/99				2-4	8.5	0.12 J	0.33 U	0.33 U
SB-139-2-4-Dup	05/25/99				2-4	4.3	0.32 U	0.32 U	0.32 U
SB-139-2-4	05/10/00				2-4	2.2	0.18 J	0.33 U	0.33 U
SB-139-2-4-Dup	05/10/00				2-4	2.1	0.2 J	0.33 U	0.33 U
SB-139-8-10	11/18/94	6073.49	12251.3	S100, W250	8-10	16	30	24	55
SB-139-8-10	05/25/99				8-10	3.6	0.33 U	0.33 U	0.33 U
SB-139-8-10-Dup	05/25/99				8-10	3.2	0.33 U	0.33 U	0.33 U

TABLE 1

COMPARISON OF BASELINE AND CONFIRMATION SAMPLING

SVOCs - KIDP AREA

FISHER-CALO SITE

KINGSBURY INDIANA

LOCATION	*SAMPLE DATE*	*STATE COORDINATES* [1] *NORTHING*	*EASTING*	*LOCAL COORDINATES*	*DEPTH (feet)*	*B2EP*	*Isophorone*	*2-Methyl-naphthalene*	*Naphthalene*
					Soil Action Levels	6.1	410	190	190
K-SB1-2-4	05/28/97	6057.40	12243.99	S112, W262	2-4	14 J	150	25 J	67
K-SB1-2-4 Dup	05/28/97				2-4	18 J	160	28	78
K-SB1-2-4	05/27/99				2-4	50	91	71	160
K-SB1-2-4-Dup	05/27/99				2-4	48	200	81	220
K-SB1-2-4	05/10/00				2-4	1.9	0.33 U	35	84
K-SB1-2-4-Dup	05/10/00				2-4	3.6	0.33 U	37	88
K-SB1-2-4	05/08/01				2-4	0.33 U	0.33 U	0.33 U	0.33 U
K-SB1-2-4-Dup	05/08/01				2-4	0.33 U	0.33 U	0.33 U	0.33 U
K-SB1-16-18	05/28/97	6057.40	12243.99	S112, W262	16-18	6.9 J	83	28	61
K-SB1-16-18 Dup	05/28/97				16-18	9 J	88	28	71
K-SB1-16-18	05/27/99				16-18	18	1.8	19	14
K-SB1-16-18-Dup	05/27/99				16-18	21	3.7	20	17
K-SB1-16-18	05/10/00				16-18	1.9	0.33 U	0.33 U	0.33 U
K-SB1-16-18-Dup	05/10/00				16-18	5.4	0.33 U	0.33 U	0.33 U
K-SB2-2-4	05/28/97	6033.99	12252.78	S137, W262	2-4	13	13 U	23	57
K-SB2-2-4 Dup	05/28/97				2-4	35	33 U	60	150
K-SB2-2-4	05/27/99				2-4	49	2.6 J	190	300
K-SB2-2-4-Dup	05/27/99				2-4	40	19	110	110
K-SB2-2-4	05/10/00				2-4	5.6	0.33 U	1.4	0.79
K-SB2-2-4-Dup	05/10/00				2-4	5	0.33 U	0.25 J	0.12 J
K-SB2-2-4	05/08/01				2-4	10	15	6.8	2.9
K-SB2-2-4-Dup	05/08/01				2-4	4.2	6.5	2.5	2
K-SB3-2-4	05/29/97	6066.19	12267.39	S112, W237	2-4	11	6.6 U	17	35
K-SB3-2-4 Dup	05/29/97				2-4	22	16 U	45	110
K-SB3-2-4	05/26/99				2-4	17	0.25 J	0.038 J	0.046 J
K-SB3-2-4-Dup	05/26/99				2-4	3.2	0.056 J	0.33 U	0.33 U
K-SB3-2-4	05/10/00				2-4	2.7	0.33 U	0.33 U	0.33 U
K-SB3-2-4-Dup	05/10/00				2-4	4.9	0.33 U	0.33 U	0.33 U

TABLE 1

COMPARISON OF BASELINE AND CONFIRMATION SAMPLING

SVOCs - KIDP AREA

FISHER-CALO SITE

KINGSBURY INDIANA

LOCATION	*SAMPLE DATE*	*STATE COORDINATES*[1] *NORTHING*	*EASTING*	*LOCAL COORDINATES*	*DEPTH (feet)*	*B2EP*	*Isophorone*	*2-Methyl-naphthalene*	*Naphthalene*
					Soil Action Levels	6.1	410	190	190
K-SB3-8-10	05/29/97	6066.19	12267.39	S112, W237	8-10	17	50	40	100
K-SB3-8-10 Dup	05/29/97				8-10	20	81	50	120
K-SB3-8-10	05/26/99				8-10	24	1.6 U	16	4
K-SB3-8-10-Dup	05/26/99				8-10	20	8.2 U	8.7	2.7 J
K-SB3-8-10	05/10/00				8-10	2.9	0.33 U	0.33 U	0.33 U
K-SB3-8-10-Dup	05/10/00				8-10	1.6	0.33 U	0.33 U	0.33 U
K-SB3-16-18	05/29/97	6066.19	12267.39	S112, W237	16-18	38 J	230	150	350
K-SB3-16-18 Dup	05/29/97				16-18	14 J	87	51	120
K-SB3-16-18	05/27/99				16-18	24	0.29 J	64	60
K-SB3-16-18-Dup	05/27/99				16-18	25	1.6 U	60	63
K-SB3-16-18	05/10/00				16-18	9.9	0.33 U	0.33 U	0.33 U
K-SB3-16-18-Dup	05/10/00				16-18	11	0.33 U	0.33 U	0.33 U
K-SB3-16-18	05/08/01				16-18	1.7	0.33 U	1.1	0.33 U
K-SB3-16-18-Dup	05/08/01				16-18	1.4	0.33 U	1.1	0.33 U
K-SB5-2-4	05/29/97	6058.88	12283.49	S125, W225	2-4	33	18	42	99
K-SB5-2-4 Dup	05/29/97				2-4	25	22	33	82
K-SB5-2-4	05/26/99				2-4	3.3	1.6 U	0.24 J	0.2 J
K-SB5-2-4-Dup	05/26/99				2-4	4.5	1.6 U	0.43 J	0.3 J
K-SB5-8-10	05/29/97	6058.88	12283.49	S125, W225	8-10	57 J	46 J	200	470
K-SB5-8-10 Dup	05/29/97				8-10	71	100	190	480
K-SB5-8-10	05/26/99				8-10	130	1800	280	860
K-SB5-8-10-Dup	05/26/99				8-10	140	1700	310	710
K-SB5-8-10	05/10/00				8-10	16 D	280 D	57 D	130 D
K-SB5-8-10-Dup	05/10/00				8-10	16 D	290 D	60 D	140 D
K-SB5-8-10	05/08/01				8-10	3.5	44	12	20
K-SB5-8-10-Dup	05/08/01				8-10	14	230	48	100

1 - Referenced to the state plane coordinate system.

U - Not detected at stated detection limit.

TABLE 1

COMPARISON OF BASELINE AND CONFIRMATION SAMPLING
SVOCs - KIDP AREA
FISHER-CALO SITE
KINGSBURY INDIANA

LOCATION	*SAMPLE DATE*	*STATE COORDINATES*[1] *NORTHING*	*EASTING*	*LOCAL COORDINATES*	*DEPTH (feet)*	*B2EP*	*Isophorone*	*2-Methyl-naphthalene*	*Naphthalene*
				Soil Action Levels		6.1	410	190	190

J - Estimated result. Result is less than reporting limit.

D - Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagg

[ ] - Detected concentration exceeds the soil action level.

TABLE 2

SUMMARY OF SOIL ANALYTICAL DATA
KIDP AREA
FISHER-CALO SITE

Borehole #:			SB-100	SB-100	SB-100	SB-100	SB-131	SB-131
Sample ID			KC-SB-100-2-4	KC-SB-100-2-4-Dup	KC-SB-100-8-10	KC-SB-100-8-10-Dup	KC-SB-131-2-4	KC-SB-131-2-4-Dup
Depth Interval (ft):			02-04	02-04	08-10	08-10	02-04	02-04
Date Sampled:			05/08/01	05/08/01	05/08/01	05/08/01	05/08/01	05/08/01
				Duplicate		Duplicate		Duplicate
Parameters	Units	Action Level						
Base Neutrals/ SVOC								
ISOPHORONE	mg/kg	410	17	23	28	31	0.37	ND (0.33)
NAPHTHALENE	mg/kg	190	4.3	12	0.58	1.7	0.67	3.1
2-METHYLNAPHTHALENE	mg/kg	190	2.4	5.1	2.2	2.7	1.1	3.7
BIS(2-ETHYLHEXYL)PHTHALATE	mg/kg	6.1	1.4	3.5	3.2	2.3	2.7	3.7

Notes

ND - The parameter was not detected. The value in parenthesis is the reporting limit

D - The associated result is obtained at a dilution

J - The associated result is an estimated quantity

B - The parameter was detected in the associated method blank

[ ] - Shading indicates positive detections above the respective soil action level

[ ] - Shading indicates reporting limit detections above the respective soil action level

TABLE 2

SUMMARY OF SOIL ANALYTICAL DATA
KIDP AREA
FISHER-CALO SITE

Borehole #:			SB-131	SB-131	K-SB-1	K-SB-1	K-SB-2	K-SB-2
Sample ID			KC-SB-131-8-10	KC-SB-131-8-10-Dup	KC-K-SB-1-2-4	KC-K-SB-1-2-4-Dup	KC-K-SB-2-2-4	KC-K-SB-2-2-4-Dup
Depth Interval (ft):			08-10	08-10	02-04	02-04	02-04	02-04
Date Sampled:			05/08/01	05/08/01	05/08/01	05/08/01	05/08/01	05/08/01
				Duplicate		Duplicate		Duplicate
Parameters	Units	Action Level						
Base Neutrals/ SVOC								
ISOPHORONE	mg/kg	410	13	10	ND (0.33)	ND (0.33)	15	6.5
NAPHTHALENE	mg/kg	190	3	2.6	ND (0.33)	ND (0.33)	2.9	2
2-METHYLNAPHTHALENE	mg/kg	190	2.1	2	ND (0.33)	ND (0.33)	6.8	2.5
BIS(2-ETHYLHEXYL)PHTHALATE	mg/kg	6.1	1.6	1.5	ND (0.33)	ND (0.33)	10	4.2

Notes

ND - The parameter was not detected. The value in parenthesis is the reporting limit

D - The associated result is obtained at a dilution

J - The associated result is an estimated quantity

B - The parameter was detected in the associated method blank

Shading indicates positive detections above the respective soil action level

Shading indicates reporting limit detections above the respective soil action level

TABLE 2

SUMMARY OF SOIL ANALYTICAL DATA
KIDP AREA
FISHER-CALO SITE

Borehole #:			K-SB-3	K-SB-3	K-SB-5	K-SB-5
Sample ID			KC-K-SB-3-16-18	KC-K-SB-3-16-18-Dup	KC-K-SB-5-8-10	KC-K-SB-5-8-10-Dup
Depth Interval (ft).			16-18	16-18	08-10	08-10
Date Sampled.			05/08/01	05/08/01	05/08/01	05/08/01
				Duplicate		Duplicate
Parameters	Units	Action Level				
Base Neutrals: SVOC						
ISOPHORONE	mg/kg	410	ND (0.33)	ND (0.33)	44	230
NAPHTHALENE	mg/kg	190	ND (0.33)	ND (0.33)	20	100
2-METHYLNAPHTHALENE	mg/kg	190	1.1	1.1	12	48
BIS(2-ETHYLHEXYL)PHTHALATE	mg/kg	6.1	1.7	1.4	3.5	14

Notes

ND - The parameter was not detected. The value in parenthesis is the reporting limit

D - The associated result is obtained at a dilution

J - The associated result is an estimated quantity

B - The parameter was detected in the associated method blank

- Shading indicates positive detections above the respective soil action level

- Shading indicates reporting limit detections above the respective soil action level

ATTACHMENT B

VALIDATION MEMO

PARSONS ENGINEERING SCIENCE, INC.

TECHNICAL MEMORANDUM

June 12, 2001

To: Richard M. Frendt, Project Manager

From: Chris Athanassopoulos

Subject: Data Quality and Validation for the Fisher-Calo Superfund Site in Kingsbury, Indiana (Laboratory Report Number 203250)

The following information details the quality assessment and validation for soil samples collected during confirmation soil sampling performed at the KIDP site in May 2001. The samples, identified in Table 1, were analyzed for naphthalene, 2-methylnaphthalene, isophorone, and bis(2-ethylhexyl)phthalate (B2EP) in accordance with EPA Method 8270C. These analyses were performed by Severn Trent Laboratories in University Park, Illinois. The quality assurance criteria used to assess the data were established by the analytical methods and are consistent with "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," EPA-540/R-94/012, February 1994.

Holding Time Periods

The recommended holding time period for EPA Method 8270C is 14 days from sample collection to soil extraction, and 40 days from extraction to completion of analyses.

The samples were all prepared and analyzed within the required holding time periods as indicated by the sample collection and analysis dates on the chain-of-custody documents and the analytical report provided by the laboratory.

Method Blank Samples

Contamination contributed by laboratory conditions or procedures was monitored by concurrent preparation and analysis of method blank samples. No compounds of concern were detected above the reporting limits in the method blank samples, indicating that no significant laboratory contamination occurred.

Surrogate Compound Percent Recoveries

Individual sample performances for the analyses was monitored by using surrogate compound percent recoveries. The surrogate compounds used for Method 8270C were

2,4,6-tribromophenol, 2-fluorobiphenyl, phenol-d5, terphenyl-d14, nitrobenzene-d5, and 2-fluorophenol.

With the exception of K-SB-5-8-10'-Dup, all samples had surrogate recoveries within the acceptance criteria. Sample K-SB-5-8-10'-Dup had one acid surrogate low, but greater than ten percent and one base/neutral high. No corrective action was required.

Laboratory Control Samples

Laboratory control samples are prepared by adding known concentrations of the target analytes to a matrix similar to the environmental samples in the preparation batch. The laboratory control sample analyte recovery results are used to monitor the analytical process and provide evidence the laboratory is performing the method within acceptable guidelines.

With the exception of isophorone, all laboratory control sample surrogates and spikes were within laboratory established control limits. The recovery for isophorone was below the QC limit in the LCS sample; however, since the recovery for isophorone was acceptable in the MS sample, no corrective action was required.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Percent Recoveries

To assess the long-term accuracy and precision of the analytical methods on sample matrices, MS/MSD percent recoveries and relative percent differences (RPDs) were determined.

The matrix spike and matrix spike duplicate analyses were performed for sample KIDP-SB-131-8-10'-Dup. The spike recoveries for isophorone and naphthalene were above the QC limit in the MSD sample; however, since the recovery for isophorone was acceptable in the MS sample, no corrective action was required. The RPD values associated with isophorone and naphthalene were above the QC limits. Corrective action was not required for RPD values. All remaining MS/MSD recoveries and RPDs were within control limits.

Field Duplicate Samples

To assess the overall field and laboratory precision of the sampling and analysis effort, field duplicate samples were collected. The duplicate sample results were evaluated by calculating an RPD according to the following equation:

$$RPD = \frac{|R_1 - R_2|}{(R_1 + R_2)/2} \quad X \quad 100$$

where:

R_1 = value of the environmental sample result

R_2 = value of duplicate sample result

The field duplicate RPD results are presented in Table 2. The RPDs indicate a fair correlation between investigative and field duplicate results for SVOCs. The higher RPDs seen with these samples can be attributed to soil heterogeneity and to variability associated with the analytical method. This inherent variability in SVOC analytical data is the primary reason duplicate samples are collected for every B2EP sample.

Completeness

Completeness, as determined by the total number of usable results versus the total number of results was required to be 90 percent or greater. All data were considered usable and completeness was determined to be 100 percent.

Overall Assessment

The data were found to exhibit acceptable levels of accuracy and precision and may be used without additional qualification.

TABLE 1
SUMMARY OF SAMPLE IDENTIFICATION NUMBERS ASSOCIATED WITH THE MAY 2001 SOIL SAMPLING EVENT LOT NUMBER 203250

FISHER-CALO SUPERFUND SITE
KINGSBURY, INDIANA

Method 8270C

K-SB-1-2-4'
K-SB-2-2-4'
K-SB-3-16-18'
K-SB-5-8-10'
SB-100-2-4'
SB-100-8-10'
SB-131-2-4'
SB-131-8-10'